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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/600,429	07/12/2000	Shigetaka Kurita	9683/69	3368

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EXAMINER

VU, THONG H

ART UNIT	PAPER NUMBER
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2142

DATE MAILED: 09/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/600,429

Applicant(s)

KURITA ET AL.

Examiner

Thong H Vu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 July 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 July 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5. 6) ☐ Other:

1. Claims 1-21 are pending.

Claim Rejections - 35 USC § 112

2. Claims 1,2,10,11 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. (i.e.: itself)
3. Claims 3-4,13-15,20-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite in that it fails to point out what is included or excluded by the claim language. This claim is an omnibus type claim (i.e.: claim 1 or 2, claim 11 or 12).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-21 are rejected under 35 U.S.C. § 103 as being unpatentable over Chuah et al [Chuah 6,115,390] in view of Farris [6,546,003 B1]
5. As per claim 1, Chuah discloses a communication control method in a relay apparatus [router 242, Chuah Fig 2] for relaying data communications [relay, Chuah col 18 lines 42-65] between a server apparatus and a user terminal [servers 248,250,252 and clients 232, Chuah Fig 2], comprising:

a step of receiving a packet containing a message requesting establishment of a connection with the server apparatus [connection request, Chuah col 18 lines 25-41, 65-col19 line 19, col 21 lines 7-28] and an identification number for the connection

[connection ID, Chuah col 11 line 60-col 12 line 5,45-63, col 15 lines 48-55, col 16 lines 1-22,col 17 line 47-col 18 line 8, col 36 lines 7-23] sent from the user terminal according to a first communication protocol which is a protocol [the wireless protocol, Chuah col 9 lines 13-29];

a step of transmitting a packet containing an acknowledgment response message [node received ACK, Chuah col 10 lines 34-46, col 23 lines 42-67] that the packet has been received to the user terminal according to the first communication protocol, and establishing a connection between the server apparatus and **itself** according to a second communication protocol [TCP/IP Chuah col 9 lines 13-29]; Chuah also taught wherein the first communication protocol [or wireless protocol, Chuah col 9 lines 13-29] is simpler than the second communication protocol.

An Official Notice is taken that a gateway/router/relay system defined as a server act as an intermediate node for other server. A gateway received request as if it were the origin server for the requested resource [see WAP architecture page 12].

However Chuah did not detail

a step of receiving a packet containing a data transfer request message transmitted from the user terminal to the server apparatus according to the first communication protocol, and transmitting a packet containing this data transfer request message to the server apparatus according to the second communication protocol;

a step of receiving data transmitted from the server apparatus according to the second communication protocol and transmitting a packet containing this data to the user terminal according to the first communication protocol;

A skilled artisan would have motivation to improve the performance of router or relay system on the Chuah's apparatus by looking into the Internet art and found Farris teaching. Farris taught a telecommunications system connects to Internet via an interface which provides a packet containing a data transfer request message transmitted from the user terminal to the server apparatus according to the first communication protocol [packet data control signals of first protocol, Farris col 21 line 65- col 22 lines 5], and a packet containing this data transfer request message to the server apparatus according to the second communication protocol [packet data signals of second protocol, Farris col 21 line 65- col 22 lines 5];

a step of receiving data transmitted from the server apparatus according to the second communication protocol and transmitting a packet containing this data to the user terminal according to the first communication protocol [Farris col 21 line 65- col 22 lines 5, 34-50];

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the technique of using a first or simple protocol to send packet data control signals and a second protocol for data signal as taught by Farris into the Chuah's apparatus in order to utilize the router or relay system with multi protocols. Doing so would provide the dynamic and efficient capabilities to wireless units accessing to Internet.

6. Claims 2, 11-12,18-19 contain the similar limitations set forth of method claim 1. Therefore, claims 2,11-12,18-19 are rejected for the similar rationale set forth in claim 1.

7. As per claims 3,13,20 Chuah-Farris disclose the number of signal; used in establishing the connection [connection request, Chuah col 18 lines 25-41, 65-col19 line 19, col 21 lines 7-28] between the user terminal and the relay apparatus according to the first communication protocol [the wireless protocol, Chuah col 9 lines 13-29] is less than the number of signals used in establishing the connection between the relay apparatus and the server apparatus according to the second communication protocol [TCP/IP Chuah col 9 lines 13-29].

8. As per claims 4,14,21 Chuah-Farris disclose a communication interval between the user terminal and the relay apparatus is composed of a radio oriented interval [radio Chuah col 9 lines 50-64], and a communication interval between the relay apparatus and the server apparatus is composed of a wire-oriented interval [wired network Chuah col 18 lines 25-40].

9. As per claim 15, Chuah-Farris disclose a user terminal and a server apparatus are connected via a relay apparatus [router 242, Chuah Fig 2].

10. As per claim 5, Chuah-Farris disclose a communication method for performing data communications between a server apparatus and a user terminal, wherein communication control procedure in an upper layer containing a transport layer in the data communications comprises:

a first step of transmitting a first packet containing a message requesting establishment of a connection [connection request, Chuah col 18 lines 25-41, 65-col19 line 19, col 21 lines 7-28] and an identification number for the connection from the user

terminal to the server apparatus [connection ID, Chuah col 11 line 60-col 12 line 5,45-63, col 15 lines 48-55, col 16 lines 1-22,col 17 line 47-col 18 line 8, col 36 lines 7-23];

a second step of -transmitting a second packet containing an acknowledgment response message that this first packet has been received from the server apparatus to the user terminal [node received ACK, Chuah col 10 lines 34-46, col 23 lines 42-67];

a third step of transmitting a third packet containing actual data to the user terminal by designating the identification number from the server apparatus after the connection has been established between the user terminal and the server apparatus [Farris col 21 line 65- col 22 lines 5, 34-50].

11. Claims 6, 9-10,16-17 contain the similar limitations set forth of method claim 5. Therefore, claims 6, 9-11,16-17 are rejected for the similar rationale set forth in claim 5.

12. As per claims 7,8 Chuah-Farris disclose wherein in the first step, the user terminal transmits data size information indicating the maximum size of data that it is capable of receiving at once to the server apparatus; the server apparatus obtains the maximum size from the data size information which has been received, and divides the actual data for transmission to the user terminal if the size of the third packet exceeds the maximum size [maximum payload size, Chuah col 14 lines 30-47, col 19 lines 20-33]. It was well-known in the art that client or user terminal indicating the maximum size of data and server/ gateway/ proxy/ router would filter or divide the data if it exceed a threshold (or maximum size) [see Lincke reference, col13 lines 55-col 14 line 3].

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13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Thong Vu, whose telephone number is (703)-305-4643.

The examiner can normally be reached on Monday-Thursday from 8:00AM- 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Powell, can be reached at (703) 305-9703.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-9700.

Any response to this action should be mailed to: Commissioner of Patent and Trademarks, Washington, D.C. 20231 or faxed to :

After Final (703) 746-7238

Official: (703) 746-7239

Non-Official (703) 746-7240

Hand-delivered responses should be brought to Crystal Park 11,2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Thong Vu
Patent Examiner
Art Unit 2142

